

09/472105

ABSTRACT OF THE DISCLOSURE

A metering pulse transducer for utility meters, including meters for water, gas and electric service, includes a rotor (20) with five magnetically switchable elements (22-26) spaced around the axis of rotation (21), a sensing coil (27) disposed around the rotor (20), and two permanent magnets (29, 30) disposed diametrically across the rotor (20) and positioned with equal and opposite polarity such that their magnetic fields (51, 52) extend laterally to reach the path of travel (53) of the magnetically switchable elements (22-26), such that when the rotor is rotated, electric pulses are generated as a result of the magnetically switchable elements (22-26) passing the permanent magnets (29, 30). A rotor (20) having five switchable magnetic elements (22-26) disposed seventy-two degrees (72°) apart generates ten pulses per revolution of the rotor (20). The rotor (20) can be used to directly drive a "least significant digit" analog meter dial, or it may be connected to a meter register drive train (36, 37), or may be used in a turbine-type meter (70).

09472105-1229